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November Precipitation Over the Great Lakes

As a percentage of the long-term November average:

Great Lakes Basin	70%
Lake Erie (including Lake St. Clair)	87%
Lake Superior	61%
Lakes Michigan-Huron	57%
Lake Ontario	117%

Note: These figures are preliminary.

November Outflows From the Great

LEVEL news

Volume 7, Number 12 **December 8, 1999**

Lake Ontario Basin Sees Slightly Wetter Conditions in November

Conditions on Upper Lakes Continue to be dry

November brought somewhat wetter conditions to the Lake Ontario basin while conditions on the upper lakes continued to be dry.

The levels of Lakes Superior and Michigan-Huron declined by more than their usual amounts in November. The levels of Lakes Erie and St. Clair declined by about their average amounts during the month. Rather than declining, as it usually does in November, the level of Lake Ontario rose a few centimetres.

The levels of all of the Great Lakes remain below average. The levels of all of the lakes except Lake Ontario are expected to decline in December unless water supplies are much greater than average. Lake Ontario's level is expected to remain about the same.

At the beginning of December, Lake Superior's level was about 19 cm below its seasonal average. The level of Lakes Michigan-Huron was about 41 cm below its average beginning of month level and is now at chart datum. Lakes St. Clair, Erie and Ontario were 17, 11 and 8 cm below their seasonal averages, respectively.

November was the first month since April 1999 that the Montréal Harbour level did not set a new minimum record for the month. The harbour's November level was 0.27 m higher than the level recorded in November 1998, but still 0.76 m lower than the 1967-98 average for the month. The level at the harbour was above chart datum throughout November.

Ice Boom News

Each winter since 1964, the Lake Erie-Niagara River Ice Boom has been installed near the outlet of Lake Erie to reduce the amount of ice entering the Niagara River. As a result of the boom, ice jams in the river and damage to shoreline property have been minimized while water flow for hydro-electric power production has been maintained.

Use of the ice boom is authorized by the International Joint Commission (IJC). Ownership as well as the cost of operating and maintaining the boom is

Lakes

As a percentage of the long-term November average:

Lake Superior 90%

Lake Erie 94%

Lake Huron 89%

Lake Ontario 88%

Note: These figures are preliminary.

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Summary information for "LEVEL*news*"

shared equally by the New York Power Authority and Ontario Power Generation. Installation, operation and removal of the boom is done by the New York Power Authority and is monitored on behalf of the IJC by its International Niagara Board of Control.

Under the IJC's 1984 Order of Approval, installation could begin when the Lake Erie water temperature at Buffalo, NY reached 4°C (39°F). Last winter, due to the mild weather, this condition did not occur until the beginning of January 1999. The result of this late start was increased risk to the safety of the installation crew with the onset of freezing temperatures and severe weather conditions. In addition, there was the real possibility that complete installation would not be accomplished before a significant lake ice run began.

The IJC requires that its Order of Approval for the ice boom be reviewed at least every five years by the International Niagara Board of Control with recommendations being made should changes be indicated. The Board recently completed its review and recommended altering the Order of Approval by maintaining the present 4°C (39°F) water temperature requirement, but establishing a fixed date, December 16, when installation may begin should the water temperature remain above 4°C (39°F).

Interested parties on both sides of the border were contacted and a public presentation on the proposal given by the International Niagara Board of Control at its recent open house. There was no opposition to this proposed change. The IJC has, therefore, on the recommendation of its International Niagara Board of Control, amended its Order of Approval to reflect this criterion change.

Lakes Superior and Ontario Regulation

The outflow from Lake Superior averaged about 10% below the long-term average for the month. The outflow will be increased slightly in December to 2040 m^3/s, as specified by Plan 1977-A. This is almost equal to the long-term average outflow for December.

The average November outflow from Lake Ontario was below that specified by Plan 1958-D. Reductions of 200 m^3/s below those specified by Plan 1958-D were made on days with relatively high downstream levels. The November outflow averaged 6010 m^3/s, about 12% below average for the month. The flow specified by Plan 1958-D is expected to continue at a similar rate in December.

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